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10/799,461	03/12/2004	Brian Gerard Goodman	TUC920040001US1	7713

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John H. Holcombe  
IBM Corporation  
Intellectual Property Law  
8987 E. Tanque Verde Rd. #309-374  
Tucson, AZ 85749-9610

EXAMINER
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KARIMI, PEGEMAN

ART UNIT	PAPER NUMBER
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2629

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11/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,461	<b>Applicant(s)</b> GOODMAN ET AL.	
	<b>Examiner</b> PEGEMAN KARIMI	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 45-52 and 54-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 45-52 and 54-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed on 08/08/2008 has been entered and considered by the examiner.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 45-52 and 54-56 rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi (U.S. Patent No. 5,426,581) and in view of Kayser (U.S. Patent No. 6,089,453)

**As to claim 45**, Kishi discloses In an automated data storage library (Figs. 1A, 1B) comprising a plurality of storage shelves (16 represents a bank of cells where in cartridges are located on the shelves) and operational elements (12 and 18), said operational elements comprising at least one data storage drive (12), and at least one robot accessor (18) configured to transport data storage cartridges between said storage shelves and said at least one data storage drive (col. 2, lines 64-66), a system comprising:

at least one said operational element (12 or 18) for operating said automated data storage library (col. 2, lines 62-66), an operational element (e.g. 12) for at least one

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said electronic device comprising at least one of said at least one data storage drive (12) and said at least one robot accessor (18); and

a processor (24) configured to operate said at least one operational element (col. 3, lines 2-5): said processor configured to store information (position of each cell) regarding at least one of hardware (the position of the cell is an information about the hardware), software and firmware of said at least one operational element and said processor (col. 6, lines 25-35), (Also in col. 5, lines 11-13 Kishi teaches that the controller moves the accessor to a specific location, so the address of this location, which is saved in the controller, is the information needed by the controller that is saved in the library controller 24); and

said processor (24) configured to, in response to a predetermined state (calculated position), provide an update input signal (The calculated position is used to move the accessor with sufficient accuracy)

said update input signal (calculated position) comprising selected said information regarding at least one of hardware, software and firmware of said at least one operational element (the calculated position is a hardware information of the cartridge) and said processor stored by said processor (in col. 5, lines 11-13 Kishi teaches that the controller moves the accessor to a specific location, so the address of this location, which is saved in the controller, is the information needed by the controller that is saved in the library controller 24),

Kishi does not teach a visual display input and a network.

Kayser teaches a network (27); and

electronic devices (20), a plurality of said electronic devices (20) each comprising:

a network interface (31) to said network (27);

an electronic persistent visual display (156, Fig. 19a) mounted at said electronic device (col. 46, lines 47-48), said electronic persistent visual display having an input (C, conductor), said electronic persistent visual display configured to provide a visual label display (Fig. 17a, 317) which persists indefinitely (the information on the label can be changed, Fig. 18b), until updated by an input signal at said input (col. 12, lines 12-18 and col. 68, lines 55-61);

an updated input (updated information to be displayed on the visual display) at said electronic persistent visual display input (20) for display by said electronic persistent visual display (the information is displayed on the visual display of display 20),

to update said visual label display of said electronic persistent visual display (updating the display label with updated information). Therefore It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have added the visual display of Kayser to the operational element of Kishi because to display the updated information of the hardware (e.g. position) on the display of the electronic persistent visual display wherein to improve electronic display tag system which provides two way communication between the display tags and a controller or controllers for the tags (col. 3, lines 16-19) and also to provide a system where shelves can be removed without disconnecting other system components (col. 4, lines 13-15).

**As to claim 46**, Kayser teaches wherein said predetermined state (start-up) of said processor of said at least one electronic device (20) comprises a power-on and/or reset of said electronic device (col. 26, lines 59-60). (It would have been obvious by one of ordinary skilled in the art that the functionality of Kayser's processor can be combined with the processor of Kishi to control both the automatic data storage library and the visual display (electronic device)).

**As to claim 47**, Kayser teaches wherein said processor of each of said plurality of electronic devices comprises:

a programmable computer processor (col. 68, lines 63-67) and said predetermined state (power-on self-test) of said processor comprises completion of an update to computer readable program code (displaying the received data packet) of said programmable computer processor (col. 69, lines 14-19).

**As to claim 48**, Kayser teaches wherein said processor (146) of each of said plurality of electronic devices (20) additionally is configured to update said information regarding said at least one operational element and said processor (down loaded address for the tags), (the processor stores the display tag address, col. 66, lines 38-43) stored by said processor (col. 68, lines 37-46) with status information (new look up table) related to said update to computer readable program code of said programmable computer processor (col. 26, lines 46-56), and said processor update signal selected information comprises at least said status information (col. 26, lines 46-49).

**As to claim 49**, Kayser teaches wherein said processor of each of said plurality of electronic devices comprises:

programmable logic (display driver, 158) and said predetermined state of said processor comprises completion of an update to said programmable logic (252, col. 69, lines 17-19).

**As to claim 50**, Kayser teaches wherein said processor of each of said plurality of electronic devices additionally is configured:

to update said information regarding said at least one operational element and said processor (down loaded address for the tags), (the processor stores the display tag address, col. 66, lines 38-43) stored by said processor (col. 26, lines 46-50) with a version number of said updated to said programmable logic (new display tag to be added), and said processor update signal selected information (look-up table) comprises at least said version number of said update to said programmable logic (252, col. 69, lines 17-19).

**As to claim 51**, Kishi teaches wherein said predetermined state of said processor comprises:

a state achieved (storing the calculated position in the controller library) in response to an indication of completion of an engineering change to said electronic device (completion of the calculation), (col. 6, lines 24-35).

**As to claim 52**, Kayser teaches wherein said processor of each of said plurality of electronic devices additionally is configured:

to update said information regarding said at least one operational element and said processor (down loaded address for the tags), (the processor stores the display tag address, col. 66, lines 38-43) stored by said processor (col. 68, lines 37-43) with an engineering change number of said engineering change to said electronic device (1344, fig. 13e), and said processor update signal selected information comprises at least said engineering change number of said engineering change (col. 68, lines 40-46), (steps 1344-1347).

**As to claim 54**, Kayser teaches wherein said processor of each of said plurality of electronic devices additionally is configured:

to update said information regarding said electronic device stored by said processor (col. 68, lines 37-43) with status information related to said change to said at least one operational element and said processor (down loaded address for the tags), (the processor stores the display tag address, col. 66, lines 38-43), (1344, fig. 13e), and said processor update signal selected information comprises at least said status information (col. 68, lines 40-46).

**As to claim 55**, Kayser teaches wherein said predetermined state of said processor comprises a state achieved (steps 1344 through 1347) in response to a



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signal received at said network interface (new tag setup, col. 27, lines 55-57, col. 18, lines 1-7, col. 68, lines 40-46).

**As to claim 56**, Kayser teaches wherein said processor of each of said plurality of electronic devices additionally is configured to select (address which matches its stored address) said information stored by said processor in accordance with said signal received at said network interface (col. 18, lines 1-7, col. 68, lines 40-46).

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 45-52 and 54-56 have been considered but are moot in view of the new ground(s) of rejection.

The reference of Kishi (U.S. Patent No. 5,426,581) has been added in view if the new limitations added to the claims.

The newly added limitations to the claim(s) have been addressed in the detailed office action above.

Applicants' argue that Kayser's centralized pricing distribution network teaches way from applicants' claimed network. The reference of Kayser is added to the automatic data storage library of Kishi, wherein Kayser teaches electronic devices to display the hardware information (information on the tag/label). The electronic devices of Kayser can be added to the operational element(s) so when the position (information regarding the hardware) is updated the electronic devices can also be updated and display the corrected information about the hardware on the Visual display. The

information is assigned to the specific visual display by the processor, which requires a network in order to communicate with the visual displays.

Applicants' argue that the display is about whatever is on the store shelf and any local storage is only part of the display. It would have been obvious to one of ordinary skilled in the art at the time the invention was made that the visual display can display information regarding the hardware (information about the operation element) and is not limited to the store shelf.

Applicant argues that "a plurality of said electronic devices each comprising: a network interface to said network \*\*\*". As can be seen in Fig. 2, each of the electronic devices is connected to the network via a network interface (31). Also each display tag is connected to a processor as can be seen in Fig. 19a of Kayser. The processor 146 is connected to each electronic device 156.

The functionality of processor 146 is added to the functionality of processor 24 of Kishi. By combining the functionality of both processors a person skilled in the art can control both the automatic data storage library and the visual display (electronic device).

Applicant argues that Kayser does not teach an "operational element". The reference of Kishi describes the limitation of "operational element", however, Kayser updates the operational element of Kishi by updating the visual display of the operational element.

The reference of Kishi teaches the automatic data storage library.

Applicant argues in claim 46 that Kayser teaches away from applicants' updating a display in response to a predetermined state of the processor at each electronic

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device. Kayser teaches by starting up the computer (turning the processor off and then on or by resetting the processor) the visual display is initialized and the most updated information regarding that visual display is displayed.

Applicants argue that Kayser teaches away from “updating information regarding the electronic device”. By combining the references of Kishi and Kayser it would be understood that by calculating the position of a cartridge the visual display can be updated to display the updated position (information regarding the hardware).

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Campbell (U.S. Pub. No. 2003/0125834) teaches a high density storage library with horizontal array structure.

Goodman (U.S. Pub. No. 2002/0073413) teaches a multi-node processing network with an automated data storage library.

Burke (U.S. Patent No. 5,613,154) teaches a data storage mediums in an automated data storage library.

### ***Inquiry***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEGEMAN KARIMI whose telephone number is (571)270-1712. The examiner can normally be reached on Monday-Thursday 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pegeman Karimi/  
Examiner, Art Unit 2629  
October 30, 2008

/Chanh Nguyen/  
Supervisory Patent Examiner, Art  
Unit 2629